PREPARATION MANUAL FOR THE U.S. CUSTOMS INSPECTOR AND CANINE ENFORCEMENT OFFICER TEST

INTRODUCTION

Purpose of the Manual

This manual is provided to help you prepare to take the U.S. Customs Inspector and Canine Enforcement Officer written test. This test is one of several components of the examination used to select Customs Inspector and Canine Enforcement Officer trainees.

The test will consist of three parts: Part A, which assesses logical reasoning in a verbal format, Part B, which assesses reasoning in a mathematical format (arithmetic reasoning), and Part C, which assesses writing skills involving the proper use of grammar, syntax, punctuation, spelling, organization of sentences in a paragraph, and organization of paragraphs in a passage. The written test also contains a fourth test that measures other applicant attributes. This assessment, called the *Applicant Assessment*, is not discussed in this manual because it requires no prior preparation.

All of the assessments in the written test were chosen because they measure competencies and attributes that have been shown to be very important -- even critical -- for successful performance in the Inspector and Canine Enforcement Officer jobs. The reasoning test assesses how well applicants can read, understand, and apply critical thinking skills to factual situations. Customs Inspectors and Canine Enforcement Officers must read and study laws, legal commentary, and regulations. They often must make critical decisions that require superior reasoning skills. Additionally, they may be called upon to prepare written incident reports and testify in court and follow the kind of reasoning used in legal proceedings. As a result, before entering the job, they will receive training that requires reading, understanding, and applying a wealth of detailed, written materials. Although some information must be memorized, much of the information that Inspectors and Canine Enforcement Officers will use must be learned through independent reasoning. The test is, therefore, designed to select trainees who will be able to handle the academic workload and who will subsequently be able to handle complex reasoning and decision-making situations on the job.

This manual will familiarize you with the test and the instructions and will give you a chance to practice answering questions on logical reasoning, arithmetic reasoning, and grammar/English usage. The manual also will provide a quick, basic review in arithmetic to help refresh your memory of basic mathematical operations and word problems. Finally, the manual includes an outline of topics in grammar and English usage that you may want to study before taking the test. These topics are found in all basic English composition or grammar text books.

Organization of the Manual

This manual is organized into five sections. Section One explains the types of logical reasoning questions found in the test. Section Two presents the basic arithmetic review, and Section Three presents the outline of grammar and English usage topics. Section Four presents the practice test, which contains a total of 23 questions, including nine logical reasoning questions, seven arithmetic reasoning questions, and seven writing skills questions. These questions are similar to, but not exactly the same as, the questions on the actual test. By timing yourself on this practice test, you can determine how fast you will need to work to answer all of the questions within the time allowed. The practice test begins on page 19.

Section Five of the manual contains solutions, and in some instances, detailed explanations for every question in the practice test. The detailed explanations are presented for the logical reasoning questions in order to give you information on what is correct about the correct answers and what is incorrect about the wrong answers. Understanding the reasons for the correct and incorrect answers should assist you in distinguishing between a right and wrong answer on the actual test. Detailed examples are also presented for the math practice questions, although there are not always explanations for incorrect answers. You will, however, be able to see clearly the correct way to set up and solve the problems presented. Correct answers with brief explanations are provided for the writing skills practice questions.

SECTION ONE: PREPARING FOR THE REASONING TEST

The Logical Reasoning Questions

These sample questions are similar to the questions you will find in the actual test in terms of difficulty and format. Some of the questions in the test will be harder and some will be easier than those shown here. Applicants for Customs Inspector and Canine Enforcement Officer positions will take the same test. In the actual test, you will have 55 minutes to answer 25 logical reasoning questions. You should attempt to spend about two minutes on each of the questions.

Some of the questions in this manual deal with topics related to general government business. However, all of the questions in the actual test will deal with topics related to the work performed in the Customs Inspector and Canine Enforcement Officer occupations. *You should remember, however, that knowledge of job-specific subject matter is **NOT** required to answer correctly the questions in this manual nor the questions in the actual test.*

The kind of reading these questions require you to do is different from ordinary reading in which you just follow the general meaning of a series of sentences or paragraphs to see what the writer is saying about the topic. Instead, it is the kind of reading you must do with complex material when you intend to take some action or draw some conclusion based on that material.

This test asks you to make logical conclusions based on facts given in various paragraphs, and answering requires careful reading and focused thought about exactly what **is** given and what is **not** given. Therefore, you should read each question and the answer choices for each question very carefully before choosing your answer.

The information below will give you some suggestions about how to approach this part of the test and some information about how you can improve your reasoning skills.

About the Questions

Reading the Paragraph (The Beginning of the Question)

There may be facts in the paragraph that may not always be true everywhere. However, it is important for testing purposes that you **accept** every fact in the paragraph as given or true. Also remember that, in this part of the test, you are not being judged on your knowledge of facts, but rather on your ability to read and reason on the basis of the facts presented to you.

Example of a Paragraph:

> Law enforcement agencies use scientific techniques to identify suspects or to establish guilt. One obvious application of such techniques is the examination of a crime scene. Some substances found at a crime scene yield valuable clues under microscopic examination. Clothing fibers, dirt particles, and even pollen grains may reveal important information to the careful investigator. Nothing can be overlooked because all substances found at a crime scene are potential sources of evidence.

Reading the Question Lead-in

Each paragraph is followed by a lead-in statement that asks you to complete a sentence by choosing one of several phrases (possible answers) labeled (A) to (E). The lead-in sentence may be either positive or negative, as shown in the examples below:

From the information given above, it can be validly concluded that,
or
From the information given above, it CANNOT be validly concluded that,

It is important to focus on the lead-in statement because if you skim over it, you may miss a "**NOT**" and answer that question incorrectly. Positive lead-in statements are followed by four false conclusions (set of possible answers) and one correct conclusion (the correct answer). Your task is to find the correct one. Negative lead-in statements, by contrast, give you four correct conclusions and only one false conclusion; the task in these types of questions is to determine the one conclusion that **cannot** be supported by the facts in the paragraph (the false

conclusion). If you do not pay close attention to negative lead-in questions, you could jump to the conclusion that the first correct option you read must be the right answer.

The lead-in statement may also limit the possible answers in some way. For example, a lead-in statement such as

> ***"from the information given above, it can be validly concluded that, during a crime scene investigation"***

means that there might be different answers based on other times and places, but for the purpose of the test question, only conditions during a crime scene investigation (as described in the lead-in) should be considered.

The lead-in statement is followed by the set of conclusions or possible alternatives from which you will choose the correct answer. There are always five alternatives, which appear as follows:

A) all substances that yield valuable clues under microscopic examination are substances found at a crime scene
B) some potential sources of evidence are substances that yield valuable clues under microscopic examination
C) some substances found at a crime scene are not potential sources of evidence
D) no potential sources of evidence are substances found at a crime scene
E) some substances that yield valuable clues under microscopic examination are not substances found at a crime scene

Reasoning About Categories

Sometimes the information that you work with is based on your knowledge of how things can be categorized or grouped and combined with your knowledge of facts about those categories. You may have information about several categories which can be combined in various ways. You can also draw conclusions from facts that are <u>not</u> true and from facts about different events or indicators that are linked together. To understand these statements better, consider the following situation:

> Think of a situation in which you are in charge of searching a vacant building for a missing child. The building has six floors. You have assigned one group to begin searching on the first floor of the building and then to move up to the next higher floor as they complete their search. A second group is sent to the top floor to begin searching there and then to move down as they complete searching. The first two floors of the building once contained a retail store and, therefore, broken glass shelves and metal hooks litter those floors. The next three floors once contained offices and, although they do not have any metal or broken glass on the floors, these floors do have plenty of leftover paper trash everywhere. The top

floor used to be a penthouse apartment, and it is the only floor in the building that is still carpeted.

This situation gives you six floors that have in the past been used for three different purposes. There are two groups of searchers with two different search patterns. Within this situation, there are various categories into which information can be sorted. As the searchers report back to you on their progress, your level of certainty will depend on the completeness of the information you receive from them.

For example, if one group leader reports back "We've just finished searching a floor that is carpeted, and the child is not here," you **can** conclude that the child is not on the penthouse apartment level of the building. However, if the other group leader calls to say "We've just finished searching a floor with a lot of glass debris all over the place," you **cannot** conclude that the retail part of the building has been completely searched because the leader only told you about one floor while there were two floors in that category (two floors with glass all over the floor). However, if the leader told you "We've just finished searching two floors full of glass and metal hooks, and we're moving on to search the next floor up, where there seems to be a lot of paper all over," then you **could** conclude that the entire retail section had been searched because you have information that is complete about that category.

As you study the logical reasoning test questions, you must use the type of approach described above to reason about categories of information and draw conclusions through the process of elimination.

Statements Using the Quantifier "All"

One of the biggest mistakes people make when they jump to conclusions without basing them on all the facts is to misinterpret statements beginning with "all." A sentence that begins with the words "all" or "every" gives you information about how two different groups are linked. If a librarian told you "All the books on this set of shelves are about law enforcement," you might be tempted to conclude that all of the library's books on law enforcement were on that set of shelves, but you would be wrong. That sentence simply tells you that the books on those shelves are a subcategory of the category of books on law enforcement. That sentence does **not** tell you anything about where other law enforcement books are located in the library. Therefore, you do not have any information on the rest of that category.

It is easier to recognize the error in this kind of thinking if you consider two linked groups of things that are of very different sizes. Suppose a neighbor describes a children's birthday party at his house, saying "all the children at the party spoke Spanish fluently." It would not be correct to conclude that "all people who could speak Spanish fluently attended this birthday

party." In this case, it is easy to recognize that "all the children at the party who spoke Spanish fluently" is really a subgroup of the category of "all people who could speak Spanish."

Reasoning From Disproved Facts ("NONE" and "NOT" Statements)

A lot of useful information can be gained when you learn that something is **NOT** true or when you know that one group of things is **NOT** part of a particular category. This is the same as saying that there is no overlap at all between two groups of things. Here, you can draw conclusions about either group as it relates to the other since you can count on the fact that the two groups have no members in common. If you can say "no reptiles are warm-blooded," you can also say "no warm-blooded creatures are reptiles" because you know that the first statement means that there is no overlap between the two categories.

Many investigations hinge on negative facts. In the Customs Inspector/Canine Enforcement Officer Test, you will see phrases such as "It is not the case that" or "Not all of the" or many words that begin with the prefix "non-." All of these are ways to say that a negative fact has been established.

Sometimes our ordinary speech habits get in the way. Most people would not make a statement such as "Some of the pizza has no pepperoni" unless they are trying to suggest at the same time that some of the pizza **does** have pepperoni. By contrast, a detective might make a statement such as "some of the bloodstains were not human blood" simply because only part of the samples had come back from the laboratory. The rest of the bloodstains might or might not be human.

As you work through the sample questions and practice test in this manual, think about each negative phrase or term you find. Take care to assume only as much as is definitely indicated by the facts as given, **AND NO MORE**.

SECTION TWO: BASIC ARITHMETIC REVIEW

This section provides a quick review of basic mathematical operations and concepts that will help you to answer questions on Part B -- Arithmetic Reasoning -- in the Customs Inspector and Canine Enforcement Officer Test. The material in this section is in no way intended to be a complete, comprehensive guide to arithmetic. It will, however, provide a review of the types of mathematical functions that Customs Inspectors and Canine Enforcement Officers perform on the job every day and, therefore, which you must be able to perform in solving the arithmetic word problems in the test. If you have not worked on math problems for some time, you should read this section carefully before taking the arithmetic reasoning practice test. The math test begins on page 22 of this manual. In the actual test you will have 55 minutes to answer 24 questions.

Whole Numbers vs. Fractions

A *whole number* is an integer (0, 1, 2, 3, 4, 5, ...) which can be divided by itself and by 1.

A *fraction*, on the other hand, is a number which represents a part of a whole number. A fraction is a division or ratio of two whole numbers, written in the following form: 1/4. The top number in the fraction is called the numerator and the bottom number is referred to as the denominator. The bottom number indicates the total number of equal parts into which a whole is divided, and the top number indicates the number of equal parts that are being considered or "taken." In the fraction 1/4, the whole is divided into 4 equal parts and 1 of the parts is being considered or "taken." In the fraction 3/8, the whole is divided into 8 parts, and 3 of the 8 parts are being considered or "taken."

A *mixed number* is the combination of a whole number and a fraction. For example, 9 1/4 is a mixed number which represents adding or combining the whole number "9" plus the fraction "1/4." Any mixed number can be changed into a fraction by:

- multiplying the denominator of the fraction by the whole number and adding this number to the numerator -- 4 x 9 = 36 + 1 = 37/4. This says that 9 1/4 is the same as 37/4.

To summarize this information, the integers 13, 16, and 59, are whole numbers, but 1/2, 2/3, and 3/4, are fractions, and 2 ½ and 11 7/8 are examples of mixed numbers.

Adding Fractions:

To add fractions that have the same (common) denominator, add the numerators and retain the denominator:

Example 1. 3/9 + 4/9 = 7/9

Example 2. 5/8 + 6/8 = 11/8; Reduce this fraction to its lowest term by dividing 8 into 11 and you get 1 3/8.

To add fractions that do not have the same denominators, first find a common denominator, then add the numerators. The least common denominator (LCD) is the smallest number into which each of the original denominators can be divided evenly. Study the example below:

Example 3. 1/3 + 1/2 + 3/4 = ?

In this problem, the LCD for the three fractions is 12 because 12 is the smallest number into which the numbers 3, 2, and 4 can each be divided evenly. Although 24 also is a common denominator for these three fractions, it is not the smallest denominator.

Divide the original denominators (3, 2, and 4) of each fraction into the common denominator (12) and multiply the result for each fraction by the numerator of each fraction.

Following these rules for the first fraction, we divide the original denominator (which is 3) into 12 (the LCD), which equals 4; 4 x 1 (the numerator) equals 4. So, the first fraction becomes 4/12.

Repeating this operation, the second fraction becomes 6/12, and the third becomes 9/12.

So, 4/12 + 6/12 + 9/12 = 19/12.

Reduce this fraction to its lowest term by dividing 12 into 19 and you get 1 7/12.

Subtracting Fractions:

To subtract fractions that have the same (common) denominator, subtract the numerators and retain the denominators.

Example 4. 4/5 - 1/5 = 3/5

To subtract fractions that do not have common denominators, first find the LCD, as shown in Example 3 above, then subtract the numerators. In the example below, the LCD is 15.

Example 5. 4/5 - 1/3 = 12/15 - 5/15 = 7/15

Multiplying Fractions:

To multiply fractions, multiply the numerators, then multiply the denominators.

Example 6. 3/7 x 2/4 = 6/28

Reduce the fraction to its lowest terms by dividing the numerator and the denominator by the largest common divisor (that is, the largest number by which the numerator and denominator can be divided evenly). In this example, the number is 2. So, the fraction 6/28 becomes 3/14.

Dividing Fractions:

To divide a fraction by another fraction, invert the second fraction, and multiply the numerators and denominators.

Example 7. 5/8 / 3/4 = 5/8 x 4/3 = 20/24; Reduce the fraction to its lowest terms by dividing the numerator and denominator by 4; the result is 5/6.

Working with Decimals

A decimal is a fraction that is expressed in another form. Numbers that begin with a period (called a decimal point) are decimals (also called decimal fractions). For example, the numbers .75, .045, .009 are decimals. The decimal .75 represents the fraction 3/4. If you divide the denominator (4) into the numerator (3), the result will be .75.

Adding Decimals:

Example 8. .22 + .44 = .66

Example 9. .35 + .78 can also be written as

$$\begin{array}{r} .35 \\ +\ .78 \\ \hline 1.13 \end{array}$$

Notice that the decimal points are aligned and that, in the sum "1.13," the whole number is placed to the left of the decimal point.

Subtracting Decimals:

Example 10. .69 - .14 = .55 or

$$\begin{array}{r} .69 \\ -\ .14 \\ \hline .55 \end{array}$$

Again, the decimal points are aligned.

Multiplying Decimals:

To multiply decimals, you do not need to align the decimal points. Instead, you must count the number of decimal places (to the right of the decimal point) in each set of numbers and add them. After you multiply the two sets of numbers, place the decimal point at the number of places you counted.

Example 11. 6.021 x .4 = 6021 x 4 = 24084;

Since there were 3 decimal places in 6.021 and 1 decimal place in .4, the total number of decimal places needed in the result above (24084) is 4. So, 24084 is written as 2.4084.

Dividing Decimals:

Dividing decimals also requires you to count the number of decimal places.

Example 12. In calculating 2.64 / .02, it will be easier, since you will not be using a calculator during the test, to first move the decimal point 2 places to the right in each set of numbers. This will give you 264 / 2, which is equal to 132.

Check: multiplying 132 x .02 = 2.64

Example 13. 25.164 / .06 = 2516.4 / 6 = 419.4

Notice that the decimal point was moved 2 places to the right in each set of numbers above.

Check: multiplying 419.4 x .06 = 25.164

Word Problems Using Decimals:

Example 14. Cargo weighing 6,520 tons arrived at the Marin Port and was assessed a fee of 6 cents per ton. What was the total amount assessed on the cargo?

6 cents = .06; 6,520 x .06 = 391.20. So, the answer is $391.20.

Example 15. If baggage inspection stickers cost 30 cents each, how many stickers can be purchased for $12.60?

30 cents = .30; 12.60 / .30 = 42. So, the answer is 42. You can also calculate this problem by moving the decimals in each set of numbers two places to the right and then dividing:

1260 / 30 = 42

Percentages

A percentage is yet another way of expressing a fraction. Percentages (or percents) are expressed as fractions or parts of a whole. Writing 100% is the same as writing the fraction 100/100, and writing 23% is the same as 23/100.

Converting a Decimal to a Percentage:

- To convert a decimal to a percent, move the decimal point two places to the **right**:

  Example 16. .70 = 70 or 70.00% .10 = 10 or 10.00% .01 = 1 or 1.00%

- To convert a percent to a decimal, move the decimal point two places to the **left**:

  Example 17. 50% or 50.00% = .50 .08% or 0.08% = .0008 115% or 115.00% = 1.15

- To find the percent of a number, change the percent to a decimal and multiply by the decimal:

  Example 18. 16% of 40 = 40 x .16 = 6.40

- To calculate what percent one number is of another number, reverse the calculation above and divide:

  Example 19. What percent of 40 is 6.40 ; or, 6.40 is what percent of 40)?

  Calculate 6.40 / 40 = .16; move the decimal 2 places to the right in .16 to get 16% (as shown in Example 16).

Using Percentages in Word Problems:

Example 20. Canine Enforcement Officers at Port Elinas trained 300 dogs during a one-year period. If 12% of the dogs failed the training, how many dogs failed the training?

300 x .12 = 36. So, 36 dogs failed the training.

Calculating Percentage Increases and Decreases:

Example 21. In May 1996, the number of Inspectors employed full-time at Port Pinellas was 1,300. One year later, that number increased by15%. What was the total number of Inspectors employed at Port Pinellas in May 1997?

There are two ways to solve this problem. One way is to multiply 1,300 x .15 = 195; then add 195 + 1,300 = 1,495.

Another, quicker way is to multiply 1,300 x 1.15 = 1,495. The number 1.15 is used because the Inspector workforce increased from 100% to an additional 15%, totaling 115%. Converting 115% to a decimal (as shown in Example 17), gives 1.15.

Had the Inspector workforce decreased 15% from May 1996 to May 1997, the calculation would have been 1,300 x .85 = 1,105. (Note that the decimal .85 is used because 100% minus 15% equals 85%, expressed as .85.) This is the same as multiplying 1,300 x .15 = 195 and subtracting 1,300 - 195 = 1,105.

Calculating Averages

To calculate the average of a set of numbers, add the set of numbers and divide the result by the number of items in the set:

Example 22. The average of 4, 8, and 15 is 4 + 8 + 15 = 27; and 27 / 3 = 9.

Example 23. The average weight of 3 canines working at a medium-sized airport is 130 lbs. and the smallest canine weighs 110 lbs. If the other two canines are of equal weight, how much does each of the two canines weigh?

To solve the problem, find the total value of pounds by multiplying 3 x 130 lbs. = 390. Then, subtract the weight of the smallest canine, 390 - 110, to get the combined weight of the two remaining canines. Since the two remaining canines weigh the same, divide the result by 2 -- 280 / 2 = 140. Therefore, the two remaining canines each weigh 140 lbs.

Check: The average of 110 + 140 + 140 = 390 / 3 = 130 lbs.

Solving for Unknown Values

Some math problems will have missing or unknown values that you must determine or calculate in solving the problem. To solve a math problem which has one or more unknown (not given) values, set up an equation to represent all of the values in the problem, substituting a letter of the alphabet, such as a, b, x, or y, for the unknown value.

Example 24. A passenger purchased a vase from an art dealer in Europe for $1,210. She later learned that the dealer sold her the vase for 110% of its actual

value. What was the actual value of the vase?

First, think carefully about what you need to find in order to solve the problem. In this problem, you want to find the actual value of the vase (the unknown value). Do this by substituting ***x*** for the actual value. Since the vase was sold for $1,210 and $1,210 is 110% of its actual value, the equation should look like the following:

$1,210 = 110% of ***x***; this is also written as $1,210 = 110%x or 1.10x

This is also the same as 1.10x = 1,210. Move your known values to the right side of the equation by dividing each side of the equation by 1.10; 1.10x / 1.10 = 1,210 / 1.10. The equation then becomes x = 1,210 / 1.10, which is equal to 1,100 ($1,100). Therefore, the actual value of the vase is $1,100.

> A general rule to remember is: If you add or subtract the same value to or from each side of an equation, the new equation is equal to the original equation.
>
> If you multiply or divide both sides of an equation by the same non-zero value, the new equation is equal to the original equation. In Example 24, both sides of the equation were divided by 1.10.

Ratios and Proportions

A ratio expresses the comparison of two or more things. It indicates the amount of one thing you have compared to the amount of another thing you have.

Example 25. If you have purchased season tickets to the 1998 football games and tickets for the 1998 ballet season in the ratio of 5:3, then you have 5 football tickets for every 3 ballet tickets you purchased. Notice that this does not tell you the actual number of either set of tickets you purchased—just that you bought the tickets in the ratios indicated.

A proportion shows that two or more ratios are equal. Review the following example:

Example 26. A Canine Enforcement Officer maintained an inventory of 20 kilograms (kgs) of marijuana for use in training her U.S. Customs Service canines. Five kilograms of the marijuana were stored in small plastic containers. The remainder of the drug was divided and stored in medium and large containers in the proportion of 2:1. How many kilograms of marijuana were stored in medium-sized containers and how many were stored in the large containers?

The ratio of 2 to 1 is expressed as a proportion representing 2 + 1 = 3. Thus, 2 of 3 is the same as the fraction 2/3; 1 of 3 is the same as the fraction 1/3. Since we are told that 5 of the 20 kgs are stored in small containers, this leaves 15 kgs. 2/3 of 15 = 10 and 1/3 of 15 = 5. Therefore, 10 kgs were stored in medium-sized containers and 5 kgs were stored in large containers.

Using Proportions in Rate Problems

Some math problems in the Customs test will require you to calculate rate. Review the example below:

Example 27. If an Inspector drove 300 miles in 5 hours, how long would it take him to drive 450 miles at the same rate?

Note that driving "300 miles in 5 hours" represents a **rate**. Set up the equation using the following proportions:

300/5 = 450/x, where x represents how long it would take to drive 450 miles going the same speed. This becomes 300x = 450 x 5 = 2,250; so that 300x = 2,250 and x = 2,250 / 300 = 7.5. So, the Inspector would drive 450 miles in 7.5 hours.

Brief Notes about Probability

A few questions in the Customs test will require you to apply some basic rules of probability. The example shown below will help to refresh your memory of some of these basic rules. If you need additional guidance on the topic, you should consult a standard math or statistics text. In addition, you can also find useful notes and tutorials about probability on the Internet.

Example 28. As you know, any number of events occur in our environment. An event can be the tossing of a coin, the selection of an object from a group of objects, the occurrence of a test score among a number of test scores, etc.

If you want to know the probability of randomly pulling a lemon bar from a bag of pastries that contains 3 lemon bars, 5 glazed doughnuts, and 2 muffins, you would first need to consider the total number of pastries that are in the bag (3 + 5 + 2 = 10). This total number of pastries in the bag is known as the "sample space." The probability of pulling a lemon bar from the bag would be 3/10 or .30 or 30%. The probability of pulling a glazed doughnut from the bag would be 5/10 or .50 or 50%, and the probability of pulling a muffin from the bag would be 2/10 or .20 or 20%. As you can see, these expressions are proportional.

In figuring probabilities in math problems, you must read the problem carefully and apply some reasoning. For example, if you want to know the probability of pulling a lemon bar from the bag and then later pulling a second lemon bar from the bag, you must consider or "reason" that the "sample space" is reduced each time you pull a pastry from the bag. For example: The probability of pulling the first lemon bar from the bag is 3/10, as stated above. After having pulled the lemon bar, there are no longer 3 bars in the bag; now there are only 2. So, the probability of later pulling a second lemon bar from the bag would be 2/9 or .22 or 22%. Got it?

In solving the math word problems in the Customs test that require probability, you must be careful to use reasoning in determining whether or not you have considered all of the information given in the problem or whether there is not enough information given to calculate a probability. Consider the following example:

There are several colored balls in a basket, including some blue balls. What is the probability of pulling a blue ball from the basket?

You obviously cannot answer this question because you do not have enough information. You do not know how many total balls (the sample space) nor how many blue balls are in the basket.

There are several very important rules to remember about stating the probability of an event occurring:

- All probabilities fall between 0 and 1 inclusive.
- The sum of all of the probabilities in the sample space is 1 (for example, in the pastry example above, the proportions .30 + .50 + .20 = 1.00).
- The probability of an event which cannot occur is zero (for example, in the pastry example, there were no jelly beans in the bag, so the probability of pulling a jelly bean would be zero.

Please note that these are only some of the basic rules of probability. If you know that this is one of your weak areas, obtain a textbook on basic probability and practice.

SECTION THREE: OUTLINE OF GRAMMAR TOPICS

This section of the preparation manual provides an outline of topics relating to English usage (grammar, syntax, punctuation, spelling, and organization of paragraphs in a passage). You can find each of these topics in standard English usage text books.

What is Grammar

Grammar is the entire body of rules that governs the correct speaking and writing of a language. ***Syntax*** is that part of grammar that deals with the arrangement of words, phrases, and clauses within a sentence. ***Punctuation*** deals with the proper use of such things as commas, periods, apostrophes, and question marks which separate words into sentences, clauses, and phrases in order to clarify their meaning. In the actual test, you will have 50 minutes to answer 30 questions that assess these areas. The writing practice test begins on page 24 of this manual.

Some Topics to Study

- Sentence Construction

- The Basic Parts of a Simple Sentence (Subject, Verb, Object)

- The Use of Phrases in Writing Sentences
  Restrictive Phrases (not separated in a sentence by commas)
  Nonrestrictive Phrases (separated in a sentence by commas)

- The Use of Clauses in Writing Sentences
  Independent Clauses
  Dependent Clauses
  Restrictive Clauses (not separated in a sentence by commas)
  Nonrestrictive Clauses (separated in a sentence by commas)

- The Use of Verbs in Writing Sentences
  Verb Agreement with Subjects (nouns) in Number and Person
  Verb Tense (time of the action of a verb)
  Active and Passive Verbs
  Verb *Mood* (indicative mood, subjunctive mood, imperative mood)
    - Example of indicative mood: They are going to the ball game.
    - Example of subjunctive mood: If they go at all, they will be late.
    - Example of imperative mood**:** Go now!

  Unnecessary shifts in Person, Number, Tense, or Voice of verbs which confuse readers and seriously weaken communication
  Transitive Verbs
  Intransitive Verbs
  Gerunds

- Infinitives
  - Avoidance of Split Infinitives

- Nouns
  - Common Nouns
  - Proper Nouns
  - Collective Nouns

- Pronouns
  - Demonstrative Pronouns **(**this, that, these, those)
  - Indefinite Pronouns (all, any, anybody, anyone, much, none, anything, both, each, either)
  - Interrogative Pronouns **(**who, what, which)
  - Relative Pronouns (proper use of who, whoever, whom, whomever, whose, which**,** that)
  - Personal Pronouns (proper use of I, me, we, us, you, he, him, she, her, it, they, them)
  - Possessive Pronouns (proper use of my, mine, our, ours, yours, his, hers, its, their, theirs)

- Participles

- Adjectives and Adverbs

- Prepositions

- Conjunctions

- Capitalization
  - Capitalization at the Beginning of Sentences
  - Capitalization of the First Letter of a Quotation
  - Capitalization of Proper Nouns

- Punctuation
  - Use of Periods
  - Use a Commas
  - Use of Semicolons
  - Use of Quotation Marks

- Logical Order of Paragraphs in Passages

SECTION FOUR: THE PRACTICE TEST

PART A: LOGICAL REASONING TEST

*To answer questions 1 through 9, you should select the only answer that can be validly concluded from the paragraph that is given. You must use **only** the information provided in the paragraph, without using any outside information whatsoever. In some questions, you will be asked to select the only answer that can be validly inferred from the paragraph, and in other questions, you will be asked to select the only answer that **CANNOT** be validly inferred from the paragraph. It is suggested that you take no more than 18 minutes to answer questions 1 through 9. Explanations for the correct answers follow the test questions.*

1. In order to make a valid arrest, a police officer must have probable cause, a "reasonable ground for belief in guilt," as Supreme Court Justice Rutledge stated in a 1949 opinion. This is a belief based on probabilities: more than suspicion but far less than certainty. This standard of probable cause prevents a police officer from arresting someone and finding the crime later. A police officer may make an arrest if and only if he or she has formed a reasonable belief, based on the facts, that someone has committed a crime. Courts have widely held that flight from a police officer is sufficient to justify probable cause. In a recent case a subject fled from Officer D.F.

   From the information given above it can be validly concluded that

   A) Officer D.F. may arrest the subject who fled from him
   B) Officer D.F. may not arrest the subject who fled from him
   C) no valid arrests are made with probable cause
   D) some valid arrests are made without probable cause
   E) some arrests made with probable cause are not valid arrests

2. A trucking company can act as a common carrier -- for hire to the general public at published rates. As a common carrier, it is liable for any cargo damage, unless the company can show that it is not negligent, then it is not liable for cargo damage. In contrast, a contract carrier (a trucking company hired by a shipper under a specific contract) is only responsible for cargo damage as spelled out in the contract. A Weeks Inc. tractor-trailer, acting under common carrier authority, was in a 5-vehicle accident that damaged its cargo. An Ankum Inc. tractor-trailer, acting under contract carrier authority, was involved in the same accident, and its cargo was also damaged.

   From the information given above it can be validly concluded that, in reference to the accident,

   A) if Weeks Inc. is liable, then it can show that it was not negligent
   B) if Weeks Inc. cannot show that it was not negligent, then it is not liable
   C) if Weeks Inc. can show that it was not negligent, then it is not liable
   D) if Ankum Inc. is liable, then it cannot show that it is negligent
   E) if Ankum Inc. can show that it is not negligent, then it is not liable

3. Under the Internal Revenue Code, the theft or damage of some kinds of uninsured property may be treated as a casualty loss and a tax deduction may be taken for that loss. The amount of the loss equals the reduction in the fair market value of the item. If the IRS determines that an appraisal of its lost value is difficult or impossible to obtain, the cost of the repairs is accepted as establishing the value of that reduction. G.B. claimed a casualty loss on her tax return, but the cost of the repairs was not accepted by the IRS as establishing the amount of that loss.

   From the information given above it can be validly concluded that, the IRS determined that an appraisal of the item's lost value

   A) is both difficult and impossible to obtain
   B) is impossible to obtain
   C) is quite difficult, or even impossible to obtain
   D) is difficult to obtain
   E) is neither difficult nor impossible to obtain

4. Despite the fact that HIV is not easily transmitted, its deadly potential requires that law enforcement officers protect themselves from becoming infected by it. At the Callen Precinct, Officers use only disposable items for collecting evidence whenever blood is present. While investigating a particular crime scene where blood was present, Detective R.C. of the Callen Precinct used only disposable items for collecting evidence.

   From the information given above it can be validly concluded that, when collecting evidence at a crime scene,

   A) Detective R.C. does not always use disposable items when blood is present
   B) whenever blood is not present, Detective R.C. does not use only disposable items
   C) Detective R.C. uses only disposable items whenever blood is not present
   D) no Officers at the Callen Precinct fail to use only disposable items whenever blood is present
   E) some Officers at the Callen Precinct do not use disposable items exclusively whenever blood is present

5. Often, crimes are characterized as either *malum in se* -- inherently evil -- or *malum prohibitum* -- criminal because they are declared as offenses by a legislature. Murder is an example of *malum in se*. Failing to file a tax return illustrates *malum prohibitum*. Some jurisdictions no longer distinguish between *malum in se* and *malum prohibitum*, although many still do.

   From the information given above it can be validly concluded that

   A) many jurisdictions no longer distinguish between crimes *malum in se* and *malum prohibitum*
   B) some jurisdictions still distinguish between crimes *malum in se* and *malum prohibitum*
   C) some crimes characterized as *malum in se* are not inherently evil

D) some crimes characterized as *malum prohibitum* are not declared by a legislature to be an offense
E) sometimes failing to file a tax return is characterized as *malum in se*

6. All Treasury securities, including T-bills, notes, and bonds, are now issued in book-entry form. Instead of being issued as paper certificates to investors, these securities are now electronically logged as accounting entries with the U.S. Treasury, a Federal Reserve Bank, or some other custodian.

From the information given above it can be validly concluded that

A) some Treasury securities are now issued as paper certificates
B) any securities that are not issued in book-entry form are not Treasury securities
C) no Treasury securities are now issued in book-entry form
D) it is not true that some securities now issued in book-entry form are Treasury securities
E) it is not true that all securities issued as paper certificates are non-Treasury securities

7. Some 350,000 immigrants were admitted to the United States in 1977. By 1993, 42 percent of them had been naturalized as U.S. citizens. Among these immigrants, the ones engaged in health diagnosing occupations had the highest percentage of naturalization -- 64%. Of course, 1977 immigrants in many professional occupations were naturalized at rates above 50%.

From the information given above it can be validly concluded that, among 1977 immigrants to the United States,

A) many employee subgroups who were naturalized at rates above 50% were in professional occupations
B) it is not true that some employee subgroups who were naturalized at rates above 50% were in professional occupations
C) none in professional occupations were naturalized at rates above 50%
D) many in professional occupations were not naturalized at rates above 50%
E) almost all who were in professional occupations were naturalized at rates below 50%

8. The Supreme Court's power to invalidate legislation that violates the Constitution is a strong restriction on the powers of Congress. If an act of Congress is deemed unconstitutional by the Supreme Court, then the Act is voided. Unlike a presidential veto, which can be overridden by two-thirds vote of the House and Senate, a constitutional ruling by the Supreme Court must be accepted by the Congress.

From the information given above it can be validly concluded that

A) If an act of Congress is voided, then it has been deemed unconstitutional by the Supreme Court
B) If an act of Congress has not been voided, then it has not been deemed unconstitutional by the Supreme Court

C) If an act of Congress has not been deemed unconstitutional by the Supreme Court, then it is voided
D) If an act of Congress is deemed unconstitutional by the Supreme Court, then it is not voided
E) If an act of Congress has not been voided, then it has been deemed unconstitutional by the Supreme Court

9. A rapidly changing technical environment in government is promoting greater reliance on electronic mail (e-mail) systems. As this usage grows, there are increasing chances of conflict between the users' expectations of privacy and public access rights. In some investigations, access to all e-mail, including those messages stored in archival files and messages outside the scope of the investigation, has been sought and granted. In spite of this, some people send messages through e-mail that would never be said face-to-face or written formally.

*From the information given above it **CANNOT** be validly concluded that*

A) some e-mail messages that have been requested as part of investigations have contained messages that would never be said face-to-face
B) some messages that people would never say face-to-face are sent in e-mail messages
C) some e-mail messages have been requested as part of investigations
D) e-mail messages have not been exempted from investigations
E) some e-mail messages contain information that would be omitted from formal writing

PART B: ARITHMETIC REASONING

The questions in this part of the test require you to solve math word problems involving operations such as addition, subtraction, multiplication, division, calculating percentages and averages, solving rate problems, and calculating simple probabilities. These operations reflect the type of mathematical operations that are typically performed in Customs Inspector and Canine Enforcement Officer work. Some of the questions in the actual test will be easier and some harder than the sample questions presented here. In the actual test, you will be given 55 minutes within which to complete 24 questions in Part B. You will not be allowed to use a calculator.

1. Staff at a law enforcement training academy purchases badges at $32 each for all the graduates of the academy. The last training class graduated 25 new officers. What is the total amount of money the academy staff will spend for the badges for these new officers, if the badge vendor provided the Academy a 20% discount on each badge?

A) $ 800
B) $ 790
C) $ 640
D) $ 16
E) None of these

2. The gross weight of merchandise in a container examined by a Customs Inspector was 108 pounds. To meet Customs policy, the Inspector was required to convert this weight into kilograms. If the formula for conversion is 1.8 pounds for each kilogram, what was the gross weight of the container load in kilograms (rounded to the nearest tenth)?

   A) 194.0
   B) 166.6
   C) 60.0
   D) 45.0
   E) None of these

3. On a typical day, 4/5 of all the objects inspected at a large international airport are not passenger luggage. Therefore, for a piece of passenger luggage located anywhere in the airport, the probability that it is not subject to inspection is

   A) zero
   B) 20%
   C) 75%
   D) 80%
   E) None of these

4. A Canine Enforcement Officer and her dog found a total of 1,500 packages wrapped in plain brown paper hidden in a large mail container. Upon inspection, the Officer found that some of the packages had legal Customs stickers on them and some had illegal stickers from another country. The proportion or ratio of packages with legal stickers to packages with illegal stickers was 2:3. How many packages contained illegal stickers?

   A) 1,000
   B) 900
   C) 600
   D) 500
   E) None of these

5. While working the evening shift, Inspector K took 8 hours to complete a task at his work station and Inspector M took 10 hours to complete the same task at his work station. How long would it take Inspector K and Inspector M to complete the same task working together, each working at his own work station?

   A) 9
   B) 8 1/9
   C) 4 4/9
   D) 6 3/4
   E) None of these

6. There are three dogs in a canine team in charge of inspecting cargo at an international airport. Last week, one of these dogs identified 20 packages of narcotics among 120 packages of incoming freight in a flight arriving from a certain country. Assuming that the dog selected the first package to be inspected totally at random, the probability that this package contained a shipment of narcotics was

   A) 1/3
   B) 1/4
   C) 1/5
   D) 1/6
   E) None of these

7. One day, Inspector Ferong spent 4 hours processing passengers from a flight from Brazil at a rate of 16 passengers every 40 minutes. The next day, she spent 4 hours processing passengers at a rate of 18 every 40 minutes. What was the average number of passengers she processed during the 4-hour periods on day one and day two?

   A) 283
   B) 204
   C) 141.5
   D) 102
   E) None of these

PART C: WRITING SKILLS

For questions 1, 2, 3, and 4 choose the one answer that represents a correction that should be made to the sentence. If no correction is necessary, choose (D).

1. Once a request to carry firearms into a foreign country are approved, an Officer must notify the Office of Foreign Operations for coordination of the request.

   (A) insert a comma after Operations
   (B) change are to is
   (C) change coordination to coordinating
   (D) no correction is necessary

2. Officer Smith knows that it is important for his Canine Enforcement Officers to understand each of the fundamental principals that apply to all methods of dog training.

   (A) change knows to know
   (B) insert a comma after Officers
   (C) change principals to principles
   (D) no correction is necessary

3. The geographical area composing much of the border between the U.S. and Mexico is considered to have a desert climate.

(A) change between to from
(B) insert a comma after area
(C) change is to are
(D) no correction is necessary

4. When writing a report on a drug smuggling incident, it is important to add all dates, times, names, and quotes associated from the case for future reference.

(A) change incident to incedent
(B) remove the comma after names
(C) change from to with
(D) no correction is necessary

For sample questions 5 and 6, choose the one sentence which is correct in grammar, syntax, punctuation, and spelling and which exemplifies usage suitable to a formal letter or report.

5. (A) At all times, positive reinforcement, should be given by the Canine Enforcement Officer when a dog performs a required task.
   (B) Positive reinforcement should be given at all times by the Canine Enforcement Officer, when a dog performs a required task.
   (C) When performing a required task, positive reinforcement should be given by the Canine Enforcement Officer, at all times to a dog.
   (D) Positive reinforcement should be given by the Canine Enforcement Officer at all times when a dog performs a required task.
   (E) The Canine Enforcement Officer, at all times when a dog performs a required task, should be given positive reinforcement.

6. (A) In order to deceive the U.S. Customs Agents and become a hindrance to the investigation, the informant gave a fraudulant description of the drug smugglers.
   (B) In order to deceive the U.S. Customs Agents and become a hindrence to the investigation, the informant gave a fraudelant description of the drug smugglers.
   (C) In order to deceive the U.S. Customs Agents and become a hindrance to the investigation, the informant gave a fraudulent description of the drug smugglers.
   (D) In order to deceive the U.S. Customs Agents and become a hindrance to the investigation, the informant gave a fraudelent description of the drug smugglers.

For question 7, select the correct paragraph order to create a passage that is well-organized, clear, and coherent. If no correction is necessary, choose (D).

7. (1) First used on a wide scale in 1970, Customs' narcotic detector dogs save countless staff hours in locating narcotics in vehicles, mail, unaccompanied baggage, and on cargo ships. A dog and his handler can check 500 packages in 30 minutes; it would take a Customs mail examiner several days to inspect as many. At border ports, a dog can inspect a vehicle in about two minutes; the same search by a Customs Inspector would take at least 20 minutes. Therefore, the use of narcotic detector dogs has greatly enhanced the fight against illegal drug smuggling into the United States.

(2) While not exactly high-tech, a unique tool in Customs' drug fight is its force of drug detector dogs, their trainers, and the Customs Officers who work with these canine detectors.

(3) This fight continues today, extending into the high-tech world of the 21st Century. Through diligence, close inspection, sophisticated technology, and the sacrifice of lives, Customs has given an excellent account of itself in fighting the flow of illegal drugs into this country.

(4) Since the repeal of Prohibition in 1933, liquor smuggling has naturally decreased. In recent years, however, the illegal entry of narcotics and dangerous drugs has increased to threatening proportions. During the 1960s, '70s, and '80s, Customs Officers have faced the almost overwhelming task of fighting the influx of opium, heroin, cocaine, hashish, marijuana, and amphetamines into the United States.

(A) 4, 3, 2, 1
(B) 3, 4, 1, 2
(C) 2, 3, 4, 1
(D) no change to the sentence order is necessary

THIS IS THE END OF THE PRACTICE TEST.
Please Review Your Answers in Each Part Before Reading the Answers and Explanations in Section Five.

SECTION FIVE: PRACTICE TEST ANSWERS AND EXPLANATIONS

Explanations for the Logical Reasoning Questions

1. **Correct Answer: A** Officer D. F. may arrest the subject.

The paragraph says, essentially, that "An officer may make an arrest if and only if the officer has probable cause." In the case of Officer D. F., the subject's fleeing is probable cause. Therefore, Officer D. F. may arrest the subject (Response A) and, therefore, it cannot be said that Officer D. F. may <u>not</u> arrest the subject (Response B).

The first sentence in the paragraph means that all valid arrests are made with probable cause. Response C is the opposite of this meaning, and is, therefore, false. Since all valid arrests are made **with** probable cause, it cannot be the case that some valid arrests are made without probable cause, Response D. The paragraph never tells us if either all, none, or some of the arrests made with probable cause are invalid, so Response E is unsupported.

2. **Correct Answer: C.** If Weeks Inc. can show that it was not negligent, then it is not liable.

The second sentence states the liability rule for common carriers: all common carriers are liable for cargo damages unless they can show that they are not negligent; if they can show that they are not negligent, then they are not liable for cargo damage. Weeks Inc. is a common carrier, and accordingly, this rule applies to them. From this rule it follows that if Weeks Inc. can show it was not negligent, then it is not liable, Response C. Response A contradicts this rule by claiming that when Weeks Inc. **is** liable it can show that it was not negligent. Response B contradicts this rule by claiming that Weeks Inc. is not liable even when it cannot show that it is not negligent. Responses D and E concern Ankum Inc., a contract carrier. However, the terms of the Ankum Inc. contract were not disclosed in the paragraph, so neither response is supported.

3. **Correct Answer: E.** The IRS determined that an appraisal of the item's lost value is neither difficult nor impossible to obtain.

This question's primary logical structure is an if-then structure. <u>If</u> an appraisal is either difficult or impossible to obtain, <u>then</u> the cost of repairs is accepted as establishing lost value. The IRS did NOT accept the use of the cost of repairs. Therefore, the appraisal is NOT "either difficult or impossible to obtain." If it had been "difficult or impossible to obtain" the appraisal, the IRS would have accepted the cost of repairs to establish the lost value. Response C says that the appraisal is "difficult or impossible to obtain," which contradicts the correct conclusion.

Since the appraisal is not "either difficult or impossible to obtain," we can say that the appraisal is both easy and possible to obtain. Contrary to this, Response A says that the appraisal is both difficult and impossible to obtain. Since the appraisal is easy and possible to obtain, it cannot be impossible to obtain (Response B), nor can it be difficult to obtain (Response D).

4. **Correct Answer: D** No officers at the Callen Precinct fail to use only disposable items whenever blood is present.

The second sentence of the paragraph states that whenever blood is present, all officers at the Callen precinct use only disposable items for collecting evidence. This is equivalent in meaning to answer D, that no officers fail to use only disposable items when collecting evidence in the presence of blood. Response E contradicts the second sentence in the paragraph by stating that some officers do not use disposable items exclusively when blood is present. Responses A, B, and C refer to the evidence gathering procedures of Detective R.C., who is identified in the third sentence of the paragraph as working for the Callen Precinct. Response A contradicts the sense of the second sentence by stating that Detective R.C. does not always use disposable items when blood is present. Responses B and C refer to R.C.'s evidence gathering when blood is not present. However, the paragraph does not give us information about evidence gathering in that case.

5. **Correct Answer: B.** Some jurisdictions still distinguish between crimes *malum in se and malum prohibitum.*

This question is concerned with classification of crimes into categories - that is, with the classification of crimes as either *malum in se*, which is one category, *or malum prohibitum,* which another category. The last sentence tells us that many jurisdictions still make the distinction between these two categories of crimes. Response B is a valid conclusion based on that sentence because, if ***many*** jurisdictions make the distinction, then ***some*** jurisdictions make the distinction. However, the reverse of this is not necessarily true. The fact the ***some*** jurisdictions no longer make the distinction, does not necessarily mean that ***many*** jurisdictions no longer make the distinction because, obviously, ***some*** does not necessarily mean ***many.*** The paragraph does not tell us how many jurisdictions no longer make the distinction, except to say that ***some*** no longer do it. That is why Response A is not correct.

Responses C, D, and E are based on erroneous definitions of the two categories of crimes. The paragraph tells us that **all** crimes characterized as *malum in se* are inherently evil. Response C is false because it cannot be the case that SOME crimes characterized as *malum in se* are NOT inherently evil. The paragraph also tells us that ***all*** crimes characterized as *malum prohibitum* are declared offensives by law (legislature). Response D is false because it cannot be the case that ***some*** crimes characterized as *malum prohibitum* are NOT declared by law (legislature) to be an offense. We are told that filing a tax return late is *malum prohibitum,* rather than *malum in se.* Response E is incorrect because it cannot be the case that failing to file a tax return is *malum in se.*

6. **Correct Answer: B** Any securities that are not issued in book-entry form are not Treasury securities.

This question refers to a category of securities (a security is an evidence of indebtedness) and a subcategory of Treasury securities that may include T-bills, notes, or bonds. It states that all Treasury securities are now issued in book-entry form, which means that they are not issued as paper certificates to investors, but, instead, are now electronically logged as accounting entries with some custodian.

The correct response, B, can be concluded from the first sentence of the paragraph. Since all Treasury securities are issued in book-entry form, there cannot be any Treasury securities that are not issued in that form. All of the incorrect responses are inconsistent with the first sentence of the paragraph. Response A states that "some Treasury securities are now issued as paper certificates." That contradicts the information in the paragraph that said all Treasury securities are now issued in book-entry form. Response C states that "no Treasury securities are now issued in book-entry form," which also is contrary to the first sentence of the paragraph. Response D denies any overlap in the book-entry and Treasury subcategories, which is contradicted by the paragraph. And, since the paragraph states that the new book-entry form replaces the issuance of paper certificates, Response E is false, since any paper certificate must be a non-Treasury security.

7. **Correct Answer: A** Many of those naturalized at rates above 50% were in professional occupations.

There are many possible conclusions that might be drawn about these statistics, but by reviewing all the possible answers, it is clear that the choice must be made among different statements about people in professional occupations. About this group, the paragraph says that "l977 immigrants in many professional occupations were naturalized at rates above 50%."

This example is illustrative of categories and subcategories. We do not know exactly how many is "many." We have to treat this sentence the same way we would treat one that said "some." Given this treatment, Response A is correct; it restates the final sentence in terms of the overlap between occupations with naturalization rates above 50% and professional occupations. Response B must be false because it denies that there is any overlap between occupations that have naturalization rates above 50% and professional occupations, even though this overlap is clear from the last sentence of the paragraph. And Response C does the same thing by stating that no members of the professional occupations achieved these rates.

Response D goes beyond the paragraph to draw conclusions about how many professional occupations had naturalization rates at or below 50%. We have no information about these occupations. Finally, Response E expands the proportion of occupational groups who can be assumed to be naturalized at rates at or below 50% to "almost all" -- a conclusion that again we cannot conclude because we were not given that information. In addition, Response E is contrary to the information given that many professional groups were above (rather than below) 50%.

8. **Correct Answer: B** If an act of Congress has not been voided, then it has not been deemed unconstitutional by the Supreme Court

The essential information from which Response B can be concluded is contained in the second sentence, which states that if an Act of Congress has been deemed unconstitutional, then it is voided. It follows logically that, if an Act of Congress is **not** voided, then it has **not** been deemed unconstitutional by the Supreme Court.

Response A is not supported by the paragraph because the paragraph does not indicate whether an Act of Congress is voided **only** when it has been deemed unconstitutional or if it could be voided for other reasons.

Response C, like Response A, cannot be concluded from the paragraph because the paragraph does not indicate whether or not an Act of Congress would be voided if the Supreme Court did not declare it to be unconstitutional.

Responses D and E are incorrect because they both contradict the paragraph.

Note that in this question, the correct answer follows basically from one sentence in the paragraph -- the second sentence. The rest of the paragraph presents additional information about the relationship between the Supreme Court and the Congress, which is relevant to the discussion, but not necessary to draw a conclusion. In this test, you will find some questions which will require you to use all or most of the statements presented in the paragraph in order to conclude the correct answer.

9. **Correct Answer: A**. Some e-mail messages that have been requested as part of investigations have contained messages that would never be said face-to-face.

This is an example of a question with a negative lead-in statement. It asks for the conclusion that is **NOT** supported by the paragraph. That means that four of the statements are valid conclusions from the paragraph while one is not. It is also a question that concerns categories and subcategories. Response B (some messages that people would never say face-to-face are sent in e-mail messages) correctly restates a fact given in the last sentence of the paragraph. Response E (some e-mail messages contain information that would be omitted from formal writing) correctly restates the other fact in that sentence.

The next-to-last sentence is the source of both Response C (e-mail messages have not been exempted from investigations) and Response D (e-mail messages have not been exempted from investigations). Both of these choices restate information in that sentence, based on the fact that access to e-mail messages was sought and granted. This leaves only the first option, Response A. This is the only choice that does not represent a valid conclusion, because even though we know from the paragraph that there is a subcategory of e-mail messages that are requested in investigations and also that there is a subcategory of messages that contain information that people would not say face-to-face, there is nothing that says that these subcategories overlap. We simply do not know.

Solutions to the Arithmetic Reasoning Questions

1. **Correct Answer: C** $32 x 25 = 800; 800 x .20 = 160; $800 - 160 = $640. The second way to calculate the problems is, $800 x .80 = $640.

2. **Correct Answer: C** 108 / 1.8 = 60 kgs

3. **Correct Answer: E** None of These. The probability cannot be determined because we have no information on how much luggage located anywhere in the airport was inspected.

4. **Correct Answer: B** Legal stickers = 2/5; illegal stickers = 3/5; 3/5 x 1,500 = 900.

5. **Correct Answer: C** Let Inspector K's hours be represented by 1/8 and Inspector M's hours be represented by 1/10. This says that Inspector K completes 1/8 of the job per hour and Inspector M completes 1/10 of the job per hour. Together, they work 1/8 + 1/10 = 18/80 of the job per hour, which when reduced to its lowest terms, is 9/40.

   Therefore, if **T** is the amount of time it takes the two of them to finish the job, then 9/40 of the job per hour x **T** (hours) has to equal 1 job. So, 9/40 x **T** = 1 and **T** = 40/9 = 4 4/9 hours four and four-ninths hours).

6. **Correct Answer: D** The probability is 20/120 = 1/6.

7. **Correct Answer: D** 16/40 = .40 (says Inspector K processed passengers at a rate of .40 per minute; .40 x 60 = 24 passengers per hour; and 24 x 4 = 96 passengers every four hours. For Inspector M, the calculations are 18/40 = .45 x 60 = 27 x 4 = 108. The average of 108 and 96 is 108 + 96 / 2 = 102.

Answers to the Writing Skills Questions

1. **Correct Answer: B.** A verb must agree with its subject in number. The subject, *request*, is singular and, therefore, the verb should be changed from "are" to "is."

2. **Correct Answer: C.** The correct use of the word *principles* refers to *rules, laws*, or *standards that are applied* to the method of dog training. By contrast, the word *principal* means *first* or *foremost in importance*.

3. **Correct Answer: D.** No change to the sentence is necessary.

4. **Correct Answer: C.** The correct term is "associated with" and not "associated from." Objects are "associated with" one another which means they are related to each other in some way.

5. **Correct Answer: D.** The correct answer is (D). The sentence should read as follows: Positive reinforcement should be given by the Canine Enforcement Officer at all times when a dog performs a required task.

6. **Correct Answer: C.** The correct spelling of the words "deceive," "hindrance," and "fraudulent" are used in this sentence while various incorrect spellings of these words are used in A, B, and D.

7. **Correct Answer: A.** The most logical order of the passages is 4, 3, 2, 1.

   It is not logical to begin the passages with paragraphs 2 or 3, as indicated in Responses B and C, because they appear to complete information that has been presented earlier and, therefore, depend on information in the other two paragraphs in order to be understood. This also eliminates Response D. This leaves Response A, which begins with paragraph 4. The paragraphs presented in this order form a well-organized, coherent passage.